

IN THE CLAIMS

1. (Withdrawn) A preparation for perfusion of an organ prior to transplantation or storage of the organ comprising:

a soluble derivative of a soluble polypeptide, said derivative comprising two or more heterologous membrane binding elements with low membrane affinity covalently associated with the polypeptide which elements are capable of interacting, independently and with thermodynamic additivity, with components of membranes of the organ exposed to extracellular perfusion fluids; and
a physiologically acceptable flush storage solution.

Claims 2-6. (Canceled)

7. (Withdrawn) A method for making a preparation for perfusion of an organ prior to transplantation or storage of the organ comprising a soluble derivative of a soluble polypeptide, said derivative comprising two or more heterologous membrane binding elements with low membrane affinity covalently associated with the polypeptide, which elements are capable of interacting, independently and with thermodynamic additivity, with components of membranes of the organ exposed to extracellular perfusion fluids; and
a physiologically acceptable flush storage solution comprising:

expressing DNA encoding the polypeptide portion of the derivative in a recombinant host cell;

post-translationally modifying the polypeptide to chemically introduce the membrane binding elements to form the derivative;

recovering the derivative; and

mixing the derivative with the flush storage solution.

8. (Canceled).

9. (Currently amended) A method for preparing an organ by perfusion prior to transplantation or storage of the organ comprising:

~~making a~~ providing an ischemic reperfusion injury prevention preparation for perfusion of an organ prior to transplantation or storage of the organ, ~~said preparation comprising,~~ wherein the ischemic reperfusion injury prevention preparation comprises:

(A) a soluble derivative of a soluble polypeptide, ~~said derivative comprising two or more heterologous membrane binding elements with low membrane affinity covalently associated with the polypeptide, which elements are capable of interacting, independently and with thermodynamic additivity, with components of membranes of the organ~~

~~exposed to extracellular perfusion fluids; and a physiologically acceptable flush storage solution~~ , wherein the soluble derivative comprises:

- (1) a fragment of complement receptor 1 (CR1) and
- (2) at least two membrane binding elements, wherein (a) at least one membrane binding element is a non-peptidic membrane binding element comprising acyl groups, and (b) at least one membrane binding element is a peptidic membrane binding element comprising basic amino acids, wherein the peptidic membrane binding element is bound to the non-peptidic membrane binding element and the fragment of complement receptor 1; and

(B) a physiologically acceptable flush storage solution;

and

perfusing the organ with the ischemic reperfusion injury prevention preparation.

10. (Withdrawn) A method of prevention, treatment or amelioration of a disease or disorder associated with inflammation, inappropriate complement activation, or inappropriate activation of coagulant or thrombotic processes of an organ prior to, during or after transplantation or storage of the organ comprising:

making a preparation for perfusion of an organ prior to transplantation or storage of the organ, said preparation comprising, a soluble derivative of a

soluble polypeptide, said derivative comprising two or more heterologous membrane binding elements with low membrane affinity covalently associated with the polypeptide, which elements are capable of interacting, independently and with thermodynamic additivity, with components of membranes of the organ exposed to extracellular perfusion fluids; and a physiologically acceptable flush storage solution; and

perfusing the organ with the preparation.

Claims 11-13. (Canceled).

14. (New) The method according to claim 9, wherein the physiologically acceptable flush storage solution comprises potassium citrate, sodium citrate, mannitol and magnesium sulphate.

15. (New) The method according to claim 9, wherein the fragment of complement receptor 1 (CR1) comprises short consensus repeats (SCRs) 1, 2 and 3.

16. (New) The method according to claim 15, wherein the fragment of complement receptor 1 (CR1) has a sequence according to positions 2 to 197 of SEQ ID NO.1.

17. (New) The method according to claim 9, wherein the peptidic membrane binding element comprises a sequence selected from the group consisting of SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10 and SEQ ID NO: 11.

18. (New) The method according to claim 9, wherein the non-peptidic membrane binding element comprises myristoyl.